

I. TEORIAS, PESQUISAS E ESTUDOS DE CASO

DAMN IT! I MISS YOUR HUG! PSYCHOLOGICAL SEQUELAE OF COVID-19 PANDEMIC

Caramba! Que saudade do seu abraço! Sequelas psicológicas da pandemia de COVID-19

¡Maldita sea! Extraño tu abrazo! Secuelas psicológicas de la pandemia del COVID-19

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A living story

On December 31st, 2019, the cases of what we now call SARS - Cov 2 (Severe Acute Respiratory Syndrome - Cov 2 / COVID-19) were described in Wuhan – Hubei province, China (World Health Organization [WHO], 2019; Zhu et al., 2020). It was believed that the transmission chain came from bats to humans (Zhou, Yang et al., 2020), through the contamination of animals sold in the markets of Wuhan for human diet (several of the first cases were commonly exposed to the Huanan wholesale seafood market that also traded live animals; Singhal, 2020). Quickly, everyone began to hear about a virus and a highly viral phenomenon: COVID-19. Most of us would not be prepared for the catastrophic pandemic that affected, is affecting and is likely to continue to decimate the globe. Being a highly spreading virus, although with a lower mortality rate than other epidemics such as Ebola and others, easily justifiable fear and hysteria came over us (Lurie, Saville, Hatchett & Halton, 2020). Due to the catastrophic numbers of infections around the globe and the damage to health, relationships and the economies of countries, one of the aspects that most calls our attention are the so-called psychological and neuropsychiatric sequels arising from this pandemic process, as well as general nervous system disfunction (Abad & Abad, 2020; Troyer, Kohn & Hong, 2020; Wang, Pan et al., 2020; Wang, Wang & Yang, 2020; Wu, Xu, Yang, Liu & Yang, 2020) and relation with personality traits (Sarkar & Majumder, 2020). Some studies suggest that our kids and adolescents seem to be blessed and

are the most protected range of humanity in risk of infection with COVID-19 (see “COVID-19 and child and adolescent psychiatry: an unexpected blessing for part of our population?” - Bruining, Bartels, Polderman & Popma, 2020, p. 104), not only physically as in psychological terms (“Neurotropic mechanisms in COVID-19 and their potential influence on neuropsychological outcomes in children” – Condie, 2020). Hoang et al. (2020) sustain that “children diagnosed with COVID-19 have an overall excellent prognosis” (p.1). On the other hand, some reviewers state that although actual data in children is yet limited, it is already possible to conclude (according to a large systematic review from Saleem, Rahman, Aslam, Murtazaliev & Khan, 2020) that SARS Cov2 affects children in a similar way as any other age group. Saleem et al. (2020), state that adding to that, children are able to act as transporters of the virus and can threaten the lives of other individuals. Likewise, neonates and infants are able to definitely acquire the disease from family members with no exposure to the outside world. According to the thousands of articles that were published in less than months (in the first months of 2020), and that continue to be edited every day, the main psychological dysfunctions that resulted from this almost collective hysteria related to COVID-19 is placed in the nosological field of anxiety disorders, sleep and adjustment disorders, caused by isolation (Bao, Sun, Meng, Shi & Lu, 2020; Brooks et al., 2020; Hiremath, Kowshik, Manjunath & Shettar, 2020; Taylor, 2019). We might likewise stress the importance of this psychological problematic in specific population, such as homeless

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(Lima et al., 2020), health professionals, elder people and kids (Vindegaard & Benros, 2020), as well as individuals with mental illness in psychiatric facilities (Mukhtar & Rana, 2020). As stated by Ornell, Schuch, Sordi and Kessler (2020) it is very important to keep in our memory another situation of our recent history, like 9/11 in United States and Ebola in Africa and overseas, in which we could verify that, adding to directly affected victims, fear and anger attack an exponential greater number of people around the world. If these consequences, like uncertainty, fear, anger, distress, etc., are prone to develop considerable clinical semiology characteristics in humankind, than that will lead the world to implement special measures to deal with mental health worldwide; as China was forced to cope with it (Wang, Pan et al., 2020; Xiang et al., 2020). Putting it short, the COVID-19 pandemic is a major psychological stressor in addition to its incredible influence on each surface of people's lives and organizations in nearly all social and economic segments worldwide, and by this reason, fear of disease and indecision around the forthcoming precipitate anxiety and stress-related disorders, and numerous clusters have rightfully named for the construction and distribution of strong mental health screening and treatment programs for the broad public and front-line healthcare workers (Troyer et al., 2020). So, if nothing changes dramatically, the straight and secondary mental health and psychosocial properties of the COVID-19 pandemic are ubiquitous and might touch mental health nowadays and, in the time to come (Sheth et al., 2020).

Anxiety as *sequelae*

As stated by Qiu et al. (2020), countless psychological problems such as anxiety, depression and sleep disorder and isolation arose from COVID-19 pandemic and caused severe fears to the lives and somatic health of people around the globe as well as in a psychological idiosyncratic plan. In China, once this reality completely changed emotional reaction, Li et al. (2020) demonstrated that the normal levels of anxiety disorders, rated around 4% of general population, increased dramatically and represented a clinical significant worsening in quality of emotional life, during the peak of COVID-19 confinements February-April 2020, in China. Unfortunately, for some individuals, these levels of emotional and psychological pain reached the reality of suicidal

thoughts and, even, the concretization of this tragic lack of hope in adults (Goyal, Chauhan, Chhikara, Gupta & Singh, 2020; Mamun & Griffiths, 2020; McIntyre & Lee, 2020), and tragically in children (Green, 2020; Hoekstra, 2020).

In elder patients, some authors suggest a direct relation between age, anxiety, depression and mortality (it is known that mortality rate in older patients range from 3.6 % to 14.8 % - BBC, 2020; Shahid et al., 2020; WHO, 2020c). In Japan, this reaches a huge impact on family, close relatives, colleagues, and friends, needing special information and intervention in COVID-19 pandemic (Tanoue et al., 2020). On the field of anxiety, Post-Traumatic Stress Disorder (PTSD) plays a major role as a response to COVID-19 (Bo et al., 2020).

Sleep disorders

There is numerous evidence of confinement in time of COVID-19 and its effect in worsening sleep (Altena et al., 2020; Brooks et al., 2020). For instance, a great survey on sleep habits in the US, before and after lockdown measures caused by the coronavirus disease 2019 (COVID-19), "67% of Americans said they believe their sleep was healthier before the pandemic (Sleep Habits Post Quarantine in the US, 2020)" (in Gavidia, 2020). Exceptional traumatic condition of unidentified duration is what most people are exposed to in the present worldwide home confinement state due to the COVID-19 outbreak. This could increase daytime stress, anxiety and depression levels and, directly or not, disturb in sleep. This is especially important due the relevant role of regular sleep in regulation of normal states of emotion, cognitive function, behaviour and, ultimately, personality (Xiao, Zhang, Kong, Li & Yang, 2020). Morin and Carrier (2020) state that this problem gained such a worldwide expression that to a considerable number of individuals, this problem is the major source of high stress, anxiety, worries about health, social isolation, employment, finances and great efforts to balance familiar and professional issues. The authors stress that this major stressful life event could also have disturbed sleep and related circadian rhythms, in an historic situation that healthy sleep could be of high relevance to cope adaptively with all the uncertainty about the future in this time of crisis. One of the first studies to certificate insomnia and psychological symptoms in response to a

pandemic, was the study of Lin et al. (2020) and the first to scrutinize the severity of symptoms according to the amount of fears of being ill with COVID-19. Authors state that results indicated that insomnia is more severe in female individuals, “young, living in the epicentre (Hubei) and experiencing a high degree of threat from COVID-19. As prevention and treatment efforts continue with regard to COVID-19, the general public has developed poor sleep hygiene habits, which deserve attention” (p. 1). Similar studies, according to psychological distress in general, were presented in Greek population (Voitsidis et al., 2020), Israel (Bitan, Grossman-Giron, Bloch, Mayer, Shiffman & Mendlovic, S. (2020), China (Tian, Li, Tian, Yang, Shao & Tian, 2020), England (Smith et al., 2020), Nepal (Singh & Subedi, 2020), Singapore (Sim, Chua, Vieta & Fernandez, 2020), Italy (Cui, Wang & Wang, 2020), Austria (Pieh, Budimir & Probst, 2020), France (Pham-Scottet et al., 2020), Iran (Naeim, 2020). The effect on sleep was also well studied in professionals that deal in the front line of this battle against COVID-19 (Lai et al., 2020; Zhang, Yang et al., 2020), showing that medical staff, nurses and all professionals dealing with this situation showed higher levels of sleep deprivation, burnout, stress, anxiety, post-traumatic stress disorder and mood alterations (Shechter et al., 2020), and also have to deal with the problem of handling their own fears with their patients terrors (Shao, Shao & Fei, 2020).

These prejudicial effects on sleep also attack children and adolescents, being usual to verify night terror, nightmares, insomnia, sleep related stress, separation anxiety, depression (Shen et al., 2020; Zhou, Wang et al., 2020). A major study in China describes strong emotional and psychological problems in Chinese adolescents during the COVID-19 outbreak peak (Zhou, Zhang et al., 2020), mostly on the field of depression and anxiety. These aspects gain special relevance since the consequences of emotional states (whether depressed or anxious) are well known and their effects on the sleeping sphere. Insomnia, difficulty in maintaining restful sleep, tiredness, irritability, loss of motivation to deal with this wave of special difficulty, added by the fear of contamination of oneself and family members, are difficult to control and require intervention and care by specialists prepared to deal with pandemic patients. The lessons learned in the case of other pandemics will have to be revived in order to specialize health professionals

and other caregivers to overcome this second hidden pandemic (the neuropsychiatric pandemic!). It will be an enormous risk if the government and the medical community focus only on curbing infection and economic recovery, since the long-term effects, over time, of a whole generation of children and young adults who are experiencing this process are practically incalculable. And maybe here, the famous phrase “hope for the best get ready for the worst” will help us all to take care of our mental health, not neglecting this dimension so important as the preservation of healthy sleep and its benefits.

The phantom of COVID-19: a crisis to overcome... without touch!

As a response to the complications postured by the pandemic, several public health strategies as isolation of infected or at-risk persons, decrease of social contact, and simple hygiene like repeated hand wash, have been recommended to diminish the risk of infection (Zhou, Zhang et al., 2020). Although isolation aids in accomplishing the objective of decreasing contaminations, reduced contact with family, friends, and other social support systems causes solitude increasing mental issues, like anxiety and depression (Zhou, Wang et al., 2020). Around the world, lockdown responses (isolation at home) to fight COVID-19 have had very sustained epidemiologic support, but at the same time, led people to a major confinement around the world, not always well accepted or even supported (Barkur, Vibha & Kamath, 2020). The role of telemedicine and telepsychology is playing a huge role in the efforts to deal with the necessity of providing health care, although, as time goes by, we feel a strong wave of isolation to grow, and subsequently, its emotional, psychological and relational consequences (Liu et al. 2020; Malathesh, Gowda, Kumar, Narayana & Math, 2020; Stoll, Sadler and Trachsel, 2020). Societal loneliness is characterized as a “serious public health concern” (Gerst-Emerson & Jayawardhana, 2015) and is recognized as an increasing factor to the risk of confrontational mental health consequences. As stated by several authors (Santini et al., 2020; Kavoor, 2020; Rajkumar, 2020), at this time, we have data that support that social isolation puts the elder individuals at a greater risk of depression and anxiety and even death (Shahid et al., 2020). The

phenomenon of staying at home in lockdown peak showed high levels of experiencing greater health anxiety, financial worry, and loneliness, as well as the observed impact of COVID-19 on daily life was positively related with health anxiety, financial worry, and social support, but negatively associated with loneliness (Tull et al., 2020). These results highlight the significance of social connection to mitigate negative psychological consequences of the COVID-19 pandemic (Tull et al., 2020).

Children and young adolescents are also prone to be affected by this phenomenon, related with confinement (WHO, 2020b): around the world, as a consequence of dissemination of COVID-19, millions of children and adolescents were affected by “physical distancing, quarantines and nationwide school closures” (WHO, 2020b). The most frequent symptoms related with confinement, according with COVID-19, in children and young adolescents are perception and feeling more lonely, nervous, uninterested and undefined, anxiety and anguish associated with the influence of the virus on the family sphere (WHO, 2020b; Lin, Duan, Tan, Fu & Dai, 2020; Munro & Faust, 2020). It would be very relevant to see a strong effort to deal with children suffering, represented in the article “Mental health services for children in China during the COVID-19 pandemic: results of an expert-based national survey among child and adolescent psychiatric hospitals” (Cui, Li, Zheng and Chinese Society of Child & Adolescent Psychiatry, 2020). Wu and Pan (2019) already stressed the necessity to form specialized psychiatrists and psychologists to deal specifically with the problem of children and adolescents in such situations. It is also very important to analyse comorbidity in children, during COVID-19 pandemic. In a very relevant study (“Acute stress, behavioural symptoms and mood states among school-age children with attention-deficit/hyperactive disorder during the COVID-19 outbreak”, Zhang, Shuai et al., 2020), the authors describe the increased deficits in Attention deficit hyperactivity disorder (ADHD) in children and adolescents and even in parents routines during confinement and pandemic times. The impact of lockdown has also been studied in migrant workers (Kumar, Mehra, Sahoo, Nehra & Grover, 2020). This individual had to deal with separation of original families, loss of some by death, work in a brand new country and culture, and, if it was not stressful per se, learn (as the majority of us) to leave without the total

absence of touch. As we were leaving confinement, we had to adapt to a new reality. Perhaps this exit from the lockdown was too quick, either due to the individual attitude of the people who felt more secure, or because of government measures to support and encourage an economic recovery due to the great difficulties generated in various sectors such as health, education, business, etc. (see for example López & Rodó, 2020). It is possible that this contributed to the second wave of contamination that has been felt a little around the world. Note that in August 2020, countries like India, United States of America, Brazil, Iran, as well as around Europe, are catastrophic examples (WHO, 2020a) of the indiscriminate spread of this highly contagious virus that does not prevail in any social, political, gender, economic conditions, etc. The idea of a vaccine that can be used on a large scale has been approached in a controversial way, since, on the one hand, immense laboratories have been presenting their application proposals (although with clear criticisms of not having the time of having gone through all phases of safety testing and application in humans), at the same time, senior representatives of the World Health Organization argue that, at best, we will have to learn to deal with this reality for at least two more years. There are even virologists who argue that, just as for HIV, you will never find a vaccine itself, but only a prophylactic treatment (Le et al., 2020). So, this is a reality that is here to stay, and it has changed the way we see ourselves (note that some people we met after March 2020 never saw our faces!). Masks, social distance, social etiquette, and quarantine have become words that represent the habit of an entire generation, around the world.

Conclusion

For all that has been presented, this generation set in 2019, 2020 and probably in the years to come will have to learn to look at life in a different way. There will certainly be a reality before COVID and after COVID, and as some authors argue, it would be important for us to think at this very moment about the late effects that can affect us in neuropsychiatric terms. Nobody is likely to be effectively able to anticipate the effects of a “delayed pandemic in neuropsychiatry of COVID-19 times” (see Impact of SARS-CoV-2 infection on neurodegenerative and neuropsychiatric diseases: A delayed pandemic?

Serrano-Castro et al. 2020). The novelty of this coronavirus pandemic (COVID-19) generated an unprecedented boost to universal health, as there is a risk that the outbreak will generate a “second pandemic” of mental health crisis in health systems and structures. Thus, a comprehensive public health solution to the pandemic must include (according to some authors) (a) caution regarding the psychological aspects of the hospitalization of patients, families and employees affected by COVID-19; (b) emergency planning and acute psychiatric patient care, if hospitals are overweight with COVID-19 patients; and (c) novelties to provide mental health care in societies while social exclusion is essential and the resources of the health system are overburdened. Health technicians such as first-rate nurses, chief nurses and social workers must anticipate these mental health challenges, assist in the composition of health systems and communities, and advocate an organized attitude to propagate mental well-being and resilience (Choi, Heilemann, Fauer & Mead, 2020). As

sustained by Patel (2020, p. 2), in an article that suggests the development of empowering people, in terms of mental health in COVID-19 era, “This is a timely moment for diverse stakeholders concerned with mental health, from psychiatric associations and global mental health practitioners to civil society advocates, to unite with one message, that the pandemic and its socio-economic consequences will have profound effects on population mental health and that some of the financial resources being pumped into the COVID-19 response must be allocated to ‘build back better’ mental health care systems in all countries”. For those reasons mental health professionals and the general population should start to think, in a very proactive attitude, in the period that overcome COVID-19, in order to deal with all the pitfalls that lie ahead (Türközer & Öngür, 2020) and, for sure, as in all catastrophic experiences in humankind, we will survive, we will pursue, and we will find a better part of us... and obviously (so we hope), we will endure, stronger and wiser!

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